

Current Status of the Claims

Claim 1. (currently amended) A method for generating a three-dimensional object comprising the steps of:

scanning an object model with a light beam of a light source, wherein the scanning optical system operates confocally;

detecting the light returning from the object model;

generating object model data from the detected light; and,

transmitting the object model data to an apparatus for object generation, wherein said generated three-dimensional object is generated from a mixture of polymeric liquid such that each one of said polymeric liquids is cured by one or more of a different intensity value and/or a different wavelength and/or a different polarization of the detected object model light.

Claims 2-7 (cancelled)

Claim 8. (currently amended) The method as defined in Claim 1, wherein in order to depict dynamic processes of an object plane, the a plurality of object planes in said object model detected at different times are assembled into a three-dimensional object.

Claim 9 (currently amended) A method for generating a three-dimensional object comprising the steps of:

scanning an object model with a light beam of a light source, wherein the scanning optical system operates confocally;

detecting the light returning from the object model;

generating object model data from the detected light; and,

transmitting the object model data to an apparatus for object generation, wherein object generation is accomplished substantially using laser beam lithography methods and wherein said generated three-dimensional object is generated from a mixture of polymeric liquid such that

each one of said polymeric liquids is cured by one or more of a different intensity value and/or a different wavelength and/or a different polarization of the detected object model light.

Claims 10-12 (cancelled)

Claim 13 (currently amended) The method as defined in Claim 9, wherein in order to depict dynamic processes of an object plane, ~~the~~ a plurality of object planes in said object model detected at different times are assembled into a three-dimensional object.

Claims 14-19 (cancelled)

Claim 20 (new) The method as defined in Claim 1 wherein said generated three dimensional object is transparent.

Claim 21 (new) The method as defined in Claim 1 wherein said generated three dimensional object is generated in more than one color.

Claim 22 (new) The method as defined in Claim 9 wherein said generated three dimensional object is transparent.

Claim 23 (new) The method as defined in Claim 9 wherein said generated three dimensional object is generated in more than one color.

Claim 24 (new) A method for generating a three-dimensional object comprising the steps of:
 scanning an object model with a light beam of a light source, wherein the scanning optical system operates confocally;
 detecting the light returning from the object model;
 generating object model data from the detected light; and,

transmitting the object model data to an apparatus for object generation, wherein said generated three-dimensional object is generated from a polymeric liquid and wherein said generated object is partly transparent.

Claim 25 (new) The method as defined in Claim 24 wherein said polymeric liquid possesses different degrees of transparency as a function of time of exposure to said light source.

Claim 26 (new) A method for generating a three-dimensional object comprising the steps of:

scanning an object model with a light beam of a light source, wherein the scanning optical system operates confocally;

detecting the light returning from the object model;

generating object model data from the detected light; and,

transmitting the object model data to an apparatus for object generation, wherein said object generation is accomplished substantially using laser beam lithography methods and wherein said generated three-dimensional object is generated from a polymeric liquid and wherein said generated object is partly transparent.

Claim 27 (new) The method as defined in Claim 26 wherein said polymeric liquid possesses different degrees of transparency as a function of time of exposure to said light source